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ABSTRACT

A study determined which approach for vocabulary development, context or definition, would yield the best results on a teacher-made content area vocabulary test. Two random samples (for a total of 45 students) of fourth graders from a central New Jersey elementary school were formed. One sample was taught 50 social studies vocabulary words using the dictionary method. The second sample was taught the same 50 word meanings using context clues. Identical 25 word posttests were given to both samples after two weeks of instruction. The following week, both samples completed posttest 2 on the second set of 25 words. Results indicated no significant difference in raw scores between the samples. (Contains 20 references and 4 tables of data. Appendixes present raw scores.) (Author/RS)

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VOCABULARY DEVELOPMENT:
CONTEXT CLUES VERSUS WORD DEFINITIONS

BY

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ABSTRACT

This study was conducted to determine which approach for vocabulary development, context or definition, would yield the best results on a teacher-made content area vocabulary test. Two random samples of fourth graders from a central New Jersey elementary school were formed. One sample was taught 50 social studies vocabulary words using the dictionary method. The second sample was taught the same 50 word meanings using context clues. Identical 25 word posttests were given to both samples, after two weeks of instruction. The following week both samples completed posttest 2 on the second 25 words. Results showed no significant difference in raw scores between the samples.

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DEDICATION

I dedicate this paper in loving memory to my grandmother Elizabeth Veronica Aleck, affectionately known to many of us as "Ma." Even though"Ma" is with me every day in spirit, I still wish she were here in body to share in this educational achievement.

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Concepts and facts contained in content materials are communicated largely in words. If students have limited content vocabularies, it can be assumed that they will be limited in their ability to comprehend the written materials of the content area subject.

For many years vocabulary instruction has been accomplished using the dictionary method. This method simply directed the students to look up unknown word in the glossary of the textbook or dictionary. The student would either recite or write the definition and a sentence for a word. This method can, at times, be a cause for further confusion. This occurs when the definition or sample sentence contains words too difficult for the student to read and understand.

An alternatives to this method is the teaching of word meanings through context. Instruction using contexts may be more effective for teaching new vocabulary than instruction using definitions (Crist,1977).

Content area teachers usually recognize the importance of vocabulary in comprehension and the need for vocabulary instruction. However many of these teachers might be unaware of the findings of recent research that supports direct instruction of vocabulary using context clues.

A recently completed review of 52 vocabulary instruction studies (Stahl,1986) indicates that vocabulary instruction generally does improve reading comprehension, but that not all methods of teaching word meanings have this effect.

One means of teaching word meanings, or establishing words as concepts, might be to teach word meaning through contest. This is an established method

and it is safe to say that most specialists in the area would accept the position that "out of the thousands of words each person knows and uses, relatively few have actually been "taught" or learned through consulting a dictionary: context has supplied the rest (Crist and Petrone, 1977).

Gipe (1980) discusses another method of vocabulary instruction called the dictionary method. This method simply directed the students to look up the unknown word in the dictionary, write its definition, and write a sentence for the word.

According to Stahl (1986) a person who "knows" a word can be thought of as giving two types of knowledge about words that we know - definitional information and contextual information. Stahl (1986) states that in order to "know" a word, one must not only know its definitional relations with other words, but also be able to interpret its meaning in a particular context. A determination of how much each approach, context versus definition, contributes to knowing a word is therefore of general interest.

Hypothesis

To add to the body of information in the area, the following study was undertaken. It was hypothesized that teaching unknown vocabulary words to fourth grade students through the use of context clues rather than the dictionary approach, will not have a significant effect on their performance on teacher-made content area vocabulary tests.

Procedures

The sample consisted of 45 heterogeneously grouped fourth grade students in two classes of 23 and 22. Ages ranged fron 9 - 10. Children were assigned

to each class by the principal, except for two classified children in Sample G, who are a part of an in-class support program. One child in Sample S receives basic skills instruction in reading. All special needs students were excluded from the study.

As can be seen in Table 1, there is less than a two point difference

Table 1

Mean, Standard Deviation, and t on the Test of Cognitive Skills

	N	M	SD	t
Sample G	22	116.59	15.47	.38 NS
Sample S	23	118.30	14.55	

between the means of two as the outset of the study was modest, in favor of the control sample, and this difference was not significant.

Table 2 shows the level of vocabulary development of the two samples

Table 2

Mean, Standard Deviation, and t on the Vocabulary Section of the California Achievement Test

	N	M	SD	t
Sample G	22	78.73	24.51	.33 NS
Sample S	23	76.39	22.61	

prior to the study.

Fifty vocabulary words were chosen by the researcher from chapters not yet covered in class. These words were from the fourth grade social studies textbook Earth's Regions, McGraw-Hill 1988. Two sets of overhead transparencies were made. One set contained the fifty words, each followed by a definition supporting its use in the social studies text. The second set of transparencies contained the same fifty words, each word however, was enveloped in one or more sentences of context.

Students in Sample G were shown five words and their definitions each day for ten consecutive days. The students read the word and the definitions orally and discussed the meanings. Several students were called on to orally use one of the words in a sentence.

Students in Sample S were shown five vocabulary words and their context sentences daily. The sentences were read orally and randomly chosen individuals were asked to guess the meaning of the underlined social studies word. Wrong guesses were not corrected. Several students were asked to use the new words in sentences of their own.

On the eleventh day of this study as a review, Sample G students were shown the overhead transparencies containing all fifty words and their definitions. The researcher, read each word and definition once, not permitting questions or discussion from the class. Sample S students were shown all fifty context passages containing the same fifty social studies vocabulary words. No questions or discussions were permitted. Both samples were given the same test containing twenty-five of the fifty previously taught words, randomly chosen. The students were asked to match the words to the definition given.

The wording of the definitions differed slightly from those studied by Sample G.

One week later, both samples reviewed all fifty words again. Sample G used the transparencies containing definitions and Sample S used the context passages. Without further questions or discussion, the researcher distributed Test 2 containing the remaining twenty-five words. Again both samples were instructed to match the words to the given definitions.

Upon completion of Test 1 and Test 2 the researcher scored the data.

Results

Means of the test scores were compared using t tests to determine the significance of differences if any. The results of this study , as seen in Table 3

Table 3

Mean, Standard Deviation, and t on Vocabulary Test 1

	N	M	SD	t
Sample G	22	69.09	20.74	.36 NS
Sample S	23	66.87	21.00	

indicate that on Vocabulary Test 1 there is less than a three point difference between the means of the two samples and this difference is not significant.

Table 4 shows the results for Vocabulary Test 2 . There is less than a four

Table 4

Mean, Standard Deviation, and t on Vocabulary Test 2

	N	M	SD	t
Sample G	22	70.91	24.76	.51 NS
Sample S	23	67.30	22.58	

point difference between the means of the two samples and this difference is not significant.

Conclusions

The results of this study support the hypothesis that teaching unknown vocabulary words to fourth grade students through context clues rather than the dictionary approach would not have a significant effect on their performance on teacher - made content area vocabulary tests.

During the instructional portion of the study, Sample G experienced almost no difficulty understanding the meaning of the unfamiliar social studies vocabulary words. Most students in the sample were able to use the newly taught words in sentences with little effort.

In comparison, Sample S spent a greater amount of time each day learnimg the meanings of the same fifty social studies vocabulary words. Many students

were not exposed to the strategy of learning word meanings through context clues. Even though several different forms of context clues were introduced and explained, many of the students exhibited difficulty grasping the meanings and using these words orally in sentences of their own.

It is my belief , based on this research, that the children used in these samples need further context instruction. This should increase the chance that these children will be able to use context clues, when needed, to comprehend unfamiliar words they will encounter during future reading activities.

The topic of vocabulary development needs to be further addresses by both educators and researchers alike. Beck (1983) states the following recommendations concerning vocabulary instruction, all of which I fully agree. First, contexts presented for the purpose of vocabulary instruction should be pedagogical contexts. Second, meaningful contexts are only one aspect of effectively teaching vocabulary. The program of instruction should incorporate varied and repeated encounters with the instructed words if it is to be successful in expanding children's vocabularies. Children should be given opportunities to use the words in a wide variety of ways, such as creating their own contexts for the words, participating in games that require quick associations between words and meanings, and exploring new ways to use each newly taught word. Students need to be challenged to find the words they learn in contexts beyond the classroom and to use the words in their own writing and conversation.

VOCABULARY DEVELOPMENT:

RELATED LITERATURE

The relationship between use of context and reading-vocabulary development has long been the subject of speculation by reading theorists. Most of the research done between the late 1960's and 1993 has stressed the importance of teaching students to use context clues to ascertain word meaning as opposed to using the dictionary method. Several exploratory studies into the nature of contextual clues have been made.

The two consummate articles on contextual aid are those by (McCullough,1943) and (Artley,1943). While both authors admitted that individual, discrete types of context clues seldom occured in typical prose, each presented a set of categories, or classes, of contextual aid. They warranted their groupings on the premises that systemic teaching of these related skills demanded a precise delineation. Artley's classification system has ten parts:

1. Typographical aids, such as quotation marks, italics, bold-face type, parentheses, footnotes, and glossary references.
2. Structural aids, such as appositive phrases or clauses, non-restrictive phrases or cluases, or interpolated phrases or clauses.
3. Substitute words, such as linked synonyms or antonyms.
4. Word elements, such as roots, prefixes, and suffixes.
5. Figures of speech, such as simple or metaphor.
6. Pictoral representations; that is, accompanying pictures, diagrams, charts, graphs, and maps.
7. Inference, such as where cause-effect relationships lead the reader to a new meaning.
8. Direct explanation, such as when following or preceding examples are

included.

9. Background of experience, where pre-existing knowledge sheds direct light upon a new word or expression.
10. Subjective clues, such as tone, mood, and intent.

Artley believes that context clues included not only the words, punctuation, and graphic aids surrounding a word, but also the relevant past experiences of the reader as well as the tone, mood, and intent of the reader.

McCullough's consists of seven types or cases:

1. Comparison or contrast, where simile, parallel construction, or analogy are used to relate the meaning of an unfamiliar word or expression to that of a known other.
2. The "rebuilt" cliche, where a new synonym is substituted for an outworn member of a well-known phrase.
3. The anticipation of a new word by preceding context which clearly sets the stage for only one kind of referential meaning.
4. The use of a word in such a way as to be the only logical summation of several preceding lines.
5. A linked synonym or direct definition.
6. The direct use of the reader's past experience.
7. A combination of *several* of these preceding six types.

Dulin (1969) after studing the topic of context clues has concluded that (a) many individual differences exist in the ability to use context clues, (b) older students make more use of context than do younger ones, and (c) the closer the

contextual aid and the greater its amount, the more effective it is. He also believes that teaching contextual devices as specific types is a legitimate instructional practice.

In another article by Dulin (1970), he states that every reader who comes to reading with a previous knowledge of their language make some use of context in word recognition and comprehension. Out of the thousands of words each person knows and uses, few have actually been taught or learned through the use of a dictionary; context supplied the rest. Through the use of what he refers to as expectancy clues, an individual comes to understand most of these words as meaning simply what they "ought" to mean because they have regularly occured within a certain context or setting.

The use of context becomes essentially an "automatic" act - primarily an artifact of the reader's background of language experience - with little mental effort needed (Dulin 1970). Because of this the author feels that little direct instruction by the teacher is needed here, beyond an occasional reminder "to ask yourself what word or meaning *ought* to make sense at this point."

He also states that the use of context clues must be regularly reinforced if this technique for word-recognition and comprehension is to become a regular part of the reader's repertoire of word attack skills.

Crist and Petrone (1977) did a study on learning concepts from contexts and definitions. Its purpose was to determine the relative effects of two methods of instruction in teaching the contextual meaning of 15 unfamiliar words.

Two groups of college students learned the meanings of the 15 words. One group learned them through the pairing of word and definition; the second

group learned them through analysis of each word as it appeared in one - sentence contexts.

Two postests were given to both groups. One postest consisted of one-sentence contexts that were similar to those seen by the context group. The second test consisted of the definitions seen only during the training done by the definition group.

On the context posttest the group that had seen only contexts did significantly better than the group that had seen the definitions. On the definitions - only test there was no difference.

The results of the study by Crist and Petrone (1977) indicate that a greater understanding of an unfamiliar word's conceptual meaning might be obtained by studying contexts rather than definitions.

Gipe (1980) conducted a study comparing the effectiveness of four methods of vocabulary instruction: an association method, a category method, a context method, and a dictionary method.

Ninety-three third and seventy-eight fifth grade students rfom a midwestern elementary school participated in this study. All students were taught with all four methods over a period of eight weeks. Classrooms worked with each method for a two week period. Twelve words were taught each week; thus 24 words were taught for each method. The words themselves were intentionally chosen to be difficult in order to insure that they were unknown. The effectiveness of each method was measured by the total number of correct responses on investigator - made evaluation tasks given after each of the eight weeks.

The results of Gipe's study indicated different levels of effectiveness for the four methods being evaluated. The context method was significantly more effective than the other three. Even though good readers did significantly better than poor readers, the context method was the most effective method for both groups. There was no significant difference in performance between boys and girls.

The comparisons further revealed that the association and category methods were significantly better than the dictionary method for third graders, but not different from each other. For fifth graders, the association method was significantly better than either the category method or the dictionary method; the category and dictionary methods were not significantly different from each other.

It was proven statistically that using context to introduce new vocabulary is an effective technique. It is apparently more effective than associating known syninyms with the new word, or categorizing the new word with other familiar words, or using the dictionary.

Research done by Duffelmeyer (1984), Nagy (1985), and Buikema (1993) also support the fact that not only does context facilitate the ascertainment of word meaning, but that is does so for poor readers and good readers alike.

Hadaway and Florez (1988) added that divorcing words from their surroundings decreases the likelihood of comprehension and retention. Students need to be made aware of the total linguistic environment in which a word or phrase appears. This provides valuable input which aids in

comprehension and eventually assists in the development of syntactic knowledge.

Another comparison of learning concepts from contexts and definitions was done by Crist (1981). In summary, data derived from this single subject provide strong support for the group data collected by Crist and Petrone. For both subjects, contexts were the more effective mode of instruction. They enabled subjects to perform better with new contexts, and they also enabled both subjects to choose the appropriate word when shown definitions they had never seen.

Crist's explanation for the relative effectiveness of the context condition is that the contexts were more interesting, and therefore, more effective in maintaining each subject's attention and effort. He feels that repeated exposure to definitions is neither a novel or interesting experience for any reader.

In an article by Dupuis and Snyder (1983), content area reading difficulties are addressed. The authors feel one of the most productive approaches to helping students with problems is to begin with the most obvious skill area - vocabilary. As it happens, vocabulary is crucial because it is tied to the basic concepts of any content course, precisely what the students are trying to learn. Indeed, in many content areas, mastering the new vocabulary, or those words or phrases which label the parts of the material to be learned, is equivalent to mastering the concept.

Vocabulary is cumulative. Throughout our lives we learn new words as we learn new information. The teaching process assumes that we can use and understand the words we learned last week or last year. Our ability to retain

those words and their meanings is directly related to four principles of learning: (1) The more frequently we use words, the easier it is to recall and use them; (2) the more different ways we have used words and seen them used, the easier it is to remember them; (3) the more important or interesting words are to use, the easier it is to remember; (4) the more we know about the whole subject, the easier it is to remember specific words related to it (Dupuis and Snyder, 1983).

It is well accepted that the context that surrounds a word in text can give clues to the word's meaning. But it is not true (Beck, et al., 1983) that every context is an appropriate or effective instructional means for vocabulary development.

The authors feel the following recommendations embody the main points on their view of vocabulary instruction. First, contexts presented for the purpose of vocabulary development should be pedagogical concepts. Second, meaningful contexts are only one aspect of effective vocabulary instruction. A vocabulary program should incorporate repeated and varied encounters with the instructed words if it is to be successful in expanding children's vocabularies (Beck, et al., 1983).

There is another area of concern not covered by the previous authors' recommendations. It is helping students grapple with textbook terminology. Nelson-Herber (1986), Carney (1984), and Armstrong (1984) address this issue.

Carney's (1984) study involved thirty-five fifth grade students from a lower middle class elementary school. Subjects were randomly assigned to experimental and control groups. The experimental group was pretaught

vocabulary terms representing important concepts in a unit of social studies, while the control group had no vocabulary instruction.

Both groups were then directed to read the contextual material silently. No instruction or discussion occured. The silent reading was followed by administration of a 15 - item multiple choice test that assessed the acquisition of literal and inferential information from the textual material. Fourteen days after the initial testing, all subjects were retested on the same instrument. No reading occured prior to the second test administration.

The most pertinent finding was that students who were pretaught vocabulary scored statistically higher on tests of both immediate and long-term comprehension of social studies material than students who had not engaged in the preteaching activities.

Armstrong (1984) feels modern textbooks do a reasonably good job of calling learners' special attention to content related terms that are introduced for the first time. Such aids consist of bold-faced type, definitions in the prose of the chapter, and definitions printed in the margins or at the bottom of the page. These do not, however, take care of *all* content-related terminology that might prove troublesome for some learners. Often, some difficult terms are overlooked by the publisher's staff.

There are several approaches for teachers to follow to alleviate student's vocabulary problems. Armstrong (1984) suggests that teachers can respond by taking time to prepare teacher glossaries, to point out specialized uses of terms, to identify potential areas of confusion, and to provive clear instructions when giving assignments. Armstrong added that these approaches have the potential

not only to enhance learner's comprehension of textbook contents, but also to help them develop the broadened vocabularies that social studies teachers so sincerely wish all students would have.

Nelson-Herber (1986) believes that vocabulary should be taught directly in every content area classroom in which vocabulary load impedes the students' ability to comprehend the facts, concepts, and principles of the subject of study. Nelson-Herber (1986), in agreement with Carney (1984) and Armstrong (1984) proposed that new and difficult words should be taught *before* students are expected to recognize them in reading or use them in writing. Words should be presented in concept clusters and related to prior knowledge to facilitate organization in memory.

Nelson-Herber also states that vocabulary activities are most effective when they engage students in cooperative learning and active construction of meaning using varying contexts and activities.

Learning the meaning of new words from context is one of the major comprehension activities required when reading science, social studies, or other content area texts. Schwartz and Raphael (1985) believe that teachers need to teach students strategies they can use to expand their own vocabularies and to master unfamiliar concepts.

The concept of definition instruction addresses this need. Students are often told to "look at the context clues" or "look at the other words in the sentence," but many students do not know what they are trying to find. Students are often asked to use glossaries and dictionaries, and then told to write the new word's

meaning "in their own words." Yet they are not taught explicitly what "defining in their own words" involves.

The concept of definition instruction (Schwartz and Raphael, 1985) helps solve this problem. It provides a general schema or structure for word meaning. In doing so it makes students more efficient at selecting and evaluating different sources of information available for determining word meanings, combining the new information with prior knowledge into an organized definition of the concept, and recalling previously learned vocabulary information. To establish this concept of definition, Schwartz and Raphael suggest using a simple form of semantis word maps.

Articles by Stahl (1986), Graves and Prenn (1986), and Herman and Dole (1988) share a common theme. The authors feel that there is no one best vocabulary teaching method. There are indeed better methods and poorer ones, but every method needs to be assessed in terms of its particular costs and benefits for both teacher and students.

Herman and Dole (1988) offered recommendations for future research on vocabulary instruction. They suggest the need for research on specific kinds of context instruction, for example, to determine how effective the instructional context approach is.

The conceptual approach to vocabulary instruction also needs more research; for example, what is the role of concept development in such an approach to vocabulary instruction?

And finally Herman and Dole (1988) feel research is needed on the role of recreational reading in vocabulary learning. We need to learn more about how students learn new words while reading.

REFERENCES

Artley, A.S. (1943). Teaching word meaning through context. Elementary English Review, 20, 68-74.

Armstrong, D.G. (1984). Helping youngsters grapple with textbook terminology.
The Social Studies, 75, 216-219.

Beck, I.L., McKeown, M.G., Mc Caslin, E.S. (1983). Vocabulary development:
all contexts are not created equal. The Elementary School Journal, 83, 177-
181.

Buikema, J.L., Graves, M.F. (1993). Teaching students to use context cues to infer word meanings. Journal of Reading, 36, 450-457.

Carney, J.J., Anderson, D., Blackburn, C., Blessing, D. (1984). Preteaching vocabulary and the comprehension of social studies materials by elementary school children. Social Education, 48, 195-196.

Crist, R.L. (1981). Learning concepts from contexts and definitions: a single subject replication. Journal of Reading Behavior, 13, 271-277.

Crist, R.L., Petron, J.M. (1977). Learning concepts from contexts and definitions.
Journal of Reading Behavior, 9, 301-303.

Duffelmeyer, F.A. (1984). The effect of context on ascertaining word meaning.
Reading World, 24, 103-107.

Dulin, K.L. (1969). New research on context clues. Journal of Reading, 13, 33-
38.

Dulin, K.L. (1970). Using context clues in word recognition and comprehension.
The Reading Teacher, 23, 440-445.

Dupuis, M.M., Snyder, S.L. (1983). Develop concepts through vocabulary: a strategy for reading specialists to use with content teachers. Journal of

Reading, 26, 297-305.

Gipe, J.P. (1980). Use of a relevant context helps kids learn new word meanings.
The Reading Teacher, 33, 398-402.

Graves, M.F., Prenn, M.C. (1986). Costs and benefits of various methods of teaching vocabulary. Journal of Reading, 29, 596-602.

Hadaway, N.L., Florez, V. (1988). Five strategies for teaching vocabulary as a
process. Reading Horizons, 28, 165-171.

Herman, P.A., Dole, J. (1988). Theory and practice in vocabulary learning and
instruction. The Elementary School Journal, 89, 43-52.

Mc Cullough, C.M. (1943). Learning to use context clues. Elementary English
Review, 20, 140-143.

Nagy, W.E., Herman, P.A., Anderson, R.C. (1985). Learning words from context.
Reading Research Quaterly, 20, 233-253.

Nelson-Herber, J. (1986). Expanding and refining vocabulary in content areas.
Journal of Reading, 29, 626-633.

Schwartz, R.M., Raphael, T.E. (1985). Concept of definition: a key to improving students' vocabilary. The Reading Teacher, 39, 198-205.

Stahl, S.A. (1986). Three principles of effective vocabulary instruction.
Journal of Reading, 29, 662-668.

APPENDICES

APPENDIX A
CONTEXT SAMPLE RAW SCORES

Subject	Test 1	Test 2
1.	76	80
2.	92	88
3.	64	84
4.	76	100
5.	12	72
6.	60	24
7.	48	28
8.	84	84
9.	48	56
10.	64	80
11.	92	100
12.	56	28
13.	92	92
14.	68	76
15.	64	76
16.	76	72
17.	76	68
18.	80	72
19.	52	40
20.	76	68
21.	72	56
22.	16	36
23.	84	68

APPENDIX B
DEFINITION SAMPLE RAW SCORES

Subject	Test 1	Test 2
1.	96	100
2.	60	56
3.	88	84
4.	56	68
5.	68	92
6.	68	72
7.	44	20
8.	88	92
9.	76	48
10.	92	80
11.	80	44
12.	20	36
13.	60	84
14.	72	88
15.	56	68
16.	80	84
17.	48	80
18.	80	80
19.	92	100
20.	84	88
21.	84	84
22.	28	12